

# ROLE OF ROUTINE COAGULATION STUDIES IN IDIOPATHIC EPISTAXIS

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**ABSTRACT:** Epistaxis, being the commonest ENT emergency requiring hospital admission, is clearly an important condition - not only to the specialist but also to any general practitioner. The role of routine coagulation studies in the management of patients suffering from epistaxis is unclear. In an attempt to address this issue, the prospective case study was carried out in the department of ENT in Government medical college and hospital Nagpur over span of 2 years from October 2001 to November 2003 in which 100 cases were studied. Coagulation studies were carried out in 100 patients but only 7 patients had abnormal coagulation profile. No other coagulation abnormalities were identified. This study supports the view that there does not appear to be role for routine coagulation studies in patients of epistaxis. The investigation for potential haemostatic disorder should be performed when clinically indicated and if necessary, in consultation with the hematology service.

**Keywords:** Idiopathic Epistaxis, Coagulation Studies

## INTRODUCTION:

In the literature a multitude of causes, both local as well as systematic have been implicated as an etiological factors in the causation of epistaxis. However, in only a small number of cases can epistaxis be attributed to a well defined primary cause such as blood dyscrasia, a blood vessel abnormality or local nasal pathology. In majority of cases- over 80% bleeding arises from an artery or vein without any obvious abnormality to account for it "Spontaneous or Idiopathic Epistaxis." The role of routine coagulation studies in the management of patients without obvious indications for investigations is unclear. Few would dispute the need to evaluate the haematological level in patients with significant epistaxis, but what of routine coagulation studies? Do they have a role and do they aid patient's management? There is paucity of information in the recent literature with regard to this aspect of epistaxis management.

The aim of this study was to determine the role of routine coagulation screening in Idiopathic Epistaxis.

## MATERIAL AND METHOD:

This prospective case study was performed in the department of ENT, Government Medical College and Hospital, Nagpur on patients who had presented with spontaneous epistaxis during two years period from October 2001 to November 2003. All patients who had presented with spontaneous onset of bleeding through nose were included in this study. Patient with traumatic epistaxis, systemic disorders and local nasal pathology were excluded from this study. All the patients who were selected for this study were subjected to a detailed history taking and clinical examination and investigations.

1. Hemogram.
2. Bleeding time(BT)
3. Clotting time(CT)
4. Prothrombin time(PT)
5. Activated partial thromboplastin time (PTTK)

6. Radiology examination.
7. Nasal endoscopy.

## OBSERVATIONS:

Most common age group in this study found to be 21-30 yrs. (30%). Out of 100 patients, 63 were males and 37 were females. M: F: 17:1. Out of 100 patients, in 7 patients BT and CT was abnormal. Out of these 7 patients, 2 patients had deranged PT, 4 had deranged PTTK and 1 patient had both PT and PTTK deranged as shown in Table number I. 40% of patients were managed with chemical cautery with 50% TCA and 35% required anterior nasal packing. Approximately 21% were well managed with conservative medicinal treatment and only 4% patient's required blood transfusion.

## DISCUSSION:

Age wise, the 100 patients who were involved in the study were well spread out over the entire age spectrum with youngest being 3 years, of age and the oldest 80 years., confirming studies by earlier authors. (Shaheen OH, 1967). Out of 100 patients, 63 were males and 37 females. M: F ratio was 17:1. This supports the view that there is no evidence of sex predilection by earlier authors. (Premchandra et al 1994).

## DETAILS OF EPISTAXIS:

In this study, Little's area remained the most common site of bleed in patients of epistaxis confirming studies by earlier authors, McKenzie (1984) and Padgham (1990) it was 81.4%.

## COAGULATION PROFILE:

BT, CT, PT, PTTK were performed on blood samples of all the 100 patients. Only 7 of them (7%) had abnormalities detected in their coagulation profile. None of the 7 patients had any pointers on history and examination to suggest that the patient had coagulation disorder and need for detailed haematological work up including coagulation screening. In majority of young patients bleeding arises from Little's area and the cause remains unknown

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i.e. Idiopathic. According to Mac Nab Jones and BDale (1971&1982) about 80% of epistaxis of idiopathic origin and not usually due to dysfunction of haemostatic system.

**Table 1: Coagulation Profile**

Test	Significantly Prolonged (No. of Patients)
BT	1
CT	6
PT	2
PTTK	4
PT+PTTK	1

### Role of Coagulation Studies in the Management:

In this study of 100 patients, only 7 (7%) had abnormalities detected in their coagulation profile and it is interesting to note that a definitive diagnosis could not be arrived at even in these patients with set of investigations were performed. This study supports the findings of previous investigators (Smith IM, Landlam and Murray, 1988 and Jackson & Jackson, 1988) who suggest that the routine coagulation studies are not indicated and that hematological studies should be required in a specific rather than an indiscriminate manner. If the rationale for routine haemostatic investigations is to detect the patient who present with haemostatic causes, the more appropriate tests would include a more haemostatic work up including factor assays. (Katsanis et al 1988). This could significantly increase both cost and work load if applied in a non-targeted manner. In a similar study of 121 patients by Thaha et al, only 100 patients (8.3%) had abnormalities detected in their coagulation profile. The present study which also showed similar results supports the view that there does not appear to be a role for routine coagulation studies in patients with idiopathic epistaxis. The investigation for potential haemostatic disorders should be performed when clinically indicated and if necessary in consultation with the hematology service.

### CONCLUSION:

In conclusion, only those patients with recurrent or persistent bleeding despite adequate medical therapy, patients with positive drug history (drugs which impairs coagulation) or those having possible underlying bleeding diathesis based on either history or examination, should be evaluated further. The investigations, subsequently chosen should also reflect a sound understanding of haemostatic functions so that they may be appropriate and relevant and it is here that the role of the haematologist becomes invaluable. If this practice were to be followed then significant saving could be made by the health service in the future.

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